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Agency Secretary

# California Regional Water Quality Control Board

## Central Valley Region

Robert Schneider, Chair



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### ITEMS TO BE INCLUDED IN A SITE ASSESSMENT WORK PLAN

The outline below is a minimum requirement for items to be included and discussed in the text of all site assessment work plans submitted to the Board. All work plans must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

#### I. BACKGROUND

##### A. *Site History*

- State all operations conducted at the site.
- Identify present and historic chemical usage and handling procedures.
- List all chemical spills and their disposition.
- Identify all past and present above ground and under ground tank locations.
- Identify tank capacities and other specifications as necessary.
- Identify tank contents, past and present.
- Submit all records of tests or repairs on fuel lines and tanks.
- Identify locations of maintenance shops, chemicals used in the shops, method of chemical storage and disposal.
- Identify past and present land uses and future as applicable.

##### B. *Topographic map of site vicinity showing:*

- All natural and man-made drainage features including ditches and surface impoundments, and the drainages destination;
- Utilities, especially storm drain system;
- Location of existing monitoring wells, including those installed by other parties;
- Location of above ground and underground storage tanks, other waste-handling facilities, and/or spill site;
- Location of a major body of water relative to the site;
- Location of any nearby private, municipal, or irrigation wells; and
- Other major physical and man-made features.

##### C. *Geology/Hydrogeology*

- Include proposal for logging of boreholes and characterizing site geology, and identifying unconfined or confined aquifers and contaminant flowpaths.

#### II. PREVIOUS SITE ASSESSMENTS

Provide a detailed description of any previous site assessment conducted to determine if there is any soil or ground water contamination. Include analytical results of all soil and water samples analyzed, and water level and floating product measurements.

### III. FIELD INVESTIGATION

#### A. *General*

- Monitoring well locations and rationale
- Survey details
- Equipment decontamination procedures
- Health and safety plan

#### B. *Drilling Details*

- Describe drilling and logging methods

#### C. *Monitoring Well Design*

- Casing diameter
- Borehole diameter
- Depth of surface seal
- Well construction materials
- Diagram of well construction
- Type of well cap
- Size of perforations and rationale
- Grain size of sand pack and rationale
- Thickness and position of bentonite seal and sand pack
- Depth of well, length and position of perforated interval

#### D. *Well Development*

- Method of development to be used
- Method of determining when development is complete
- Method of development water disposal

#### E. *Soil Sampling*

- Cuttings disposal method
- Analyses to be run and methods
- Sample collection and preservation method
- Intervals at which soil samples are to be collected
- Number of soil samples to be analyzed and rationale
- Location of soil samples and rationale
- QA/QC procedures

#### F. *Well Sampling*

- Minimum time after development before sampling (48 hours)
- Well purging method and amount of purge water
- Sample collection and preservation method
- QA/QC procedures

#### G. *Water Level Measurement*

Elevation reference point at each monitoring well shall be within 0.01 foot. Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

**IV. QA/QC PROCEDURES**

Specify number of field blanks and duplicates.

**V. TIME SCHEDULE FOR PROPOSED WORK**

The work plan shall include a time schedule for implementation of work.